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To: Jim Christiansen, Remedial Project Manager
Libby Asbestos Site

From: Mary Goldade, Project Chemist

Date: April 20, 2004

Subject: Comments on Draft Flyway SAP

My cursory observations regarding the Draft Revision 1 Flyway SAP (Remedium; April, 2004) review are provided as a stream of consciousness below (in order of appearance within each document) and are generally more questions to consider about the document's content than formal recommendations. Finally, I've not identified by section every place where my comments apply; they are mentioned at the point when the issue was first observed only. If you have any questions, please let me know.

Sampling and Analysis Plan

1. Section 1.1. "Impacted fifty-three 53 grid area". Should "area" be "areas" or does this really refer to "Area #53" only?
2. Figure 1-1. The communication lines that extend from the Project QA Coordinator should extend as follows: a) solid line between Remedium Project and Alternate Project Coordinators; b) dotted line to Project manager box; c) remove solid line below Project Manager (e.g., Project QAC should not be overseen by the Project Manager, rather the Project QAC must be able to communicate with the Project Manager on QA issues.) Additionally, EPA should be included on this organization chart to indicate the communication lines among W.R. Grace's decision-making team as EPA should have final approval on all activities.
3. Section 2.7. This section states: "It is understood that this survey has been completed and no further action is required on the part of W.R. Grace." I will reiterate my comment from the previous set of review comments (SAP/QAPP Revision 0) regarding the cultural resource survey: "I do not have the information or the experience to determine if Remedium's comment is accurate, but EPA should verify the correctness of this statement before approving the SAP."



4. **Section 3.2 and all subsequent references.** (Under the Heading Ambient Air Monitoring Program, Rationale, and Locations). This section calls for PCM analysis of ambient air samples. This is NOT acceptable. All ambient air samples must be analyzed by TEM only. The reference method for sample preparation is: ISO 10312, but at the point of fiber counting the AHERA counting rules are used instead of those outlined by ISO 10312.
5. **Section 3.3.** This section provides only a vague understanding about how the background ambient air samples will be collected. Providing EPA's plan is to have an EPA representative (or designate) to oversee these in-field decisions, the lack of detail here is probably ok.
6. **Section 3.3.1 and subsequent references.** This section states: "Any changes to the sampling strategies will be coordinated through the Sample Coordinator, Air Monitoring Manager, and the Project Manager." Are there provisions for informing and obtaining approval from EPA?
7. **Section 3.3.2 and subsequent references.** Regarding the unique Index ID for all samples: Coordinate with the Volpe Center on the appropriate prefix that should apply to the Flyway project. (e.g., for the PE study all samples are ID'd as PE-XXXX)
8. **Section 3.3.5 and subsequent references.** It is NOT standard practice to calibrate a rotameter against a primary standard only **quarterly**. Rather this should be performed **at the beginning and end of each sample collection effort**. (See EPA Asbestos Sampling Protocol 2015.) Other sections suggest the latter (and appropriate) calibration approach, the SAP should be clarified for this confusion.
9. **Section 4.2.** The reference method for sample preparation is: ISO 10312, but at the point of fiber counting the AHERA counting rules are used instead of those outlined by ISO 10312.
10. **Section 4.3.** What is meant by the statement that ~25% of workers will have personal air sampling devices? Is this at all times, and all workers (even those working away from the potential exposure), etc.?
11. **Section 5.2.3 and subsequent references.** This section states: "The goal is to have less than 1% asbestos from the confirmatory soil samples." I believe this statement is incorrect and should read: "The goal is to have asbestos levels in the confirmatory soil samples reported as not detected by PLM-VE."
12. **Section 5.3.1.** The PLM method NIOSH 9002 was referenced appropriately. I strongly recommend that the Method be reference on the chain-of-custody form as follows: Modified NIOSH 9002. The modification should be that the labs should use ISTM2 reference materials to qualitatively ID Libby Amphibole concentrations. A Laboratory Modification Form should be prepared so the labs are aware. Volpe can help w/ that. Additionally, Remedium should be aware that once we complete the soil PE study, another modification form will need to be prepared to ID the use of the certified calibration materials instead of the ISTM2 reference materials.
13. **Section 8.** I agree that the list of documentation presented in this section is an abbreviated version of what EPA will ultimately expect. Other examples of documentation that EPA

requires includes: all field samples data sheets, all modification forms. Further I recommend this section describe a central filing system that tracks all logbooks issued (and their document control number). This section also states that the air sample database will be provided by KOCH. I do not recommend this. EPA already has a "database" (Excel spreadsheets) for tracking asbestos analysis for all media proposed in this SAP. Volpe can provide the air data entry spreadsheets.

14. Appendix 1.

- Request for Modification-FFO. The numbering scheme for this form must be changed to: FFO-XXX to indicate that the changes/modifications reflect actions taken at the Flyway only. Note that a Laboratory Modification form must be prepared for any changes made to the laboratory analysis efforts (See previous comment).
- Chain of Custody Form. One other change must be made to this form: Reference the modification form that spells out the use of ISTM2 reference materials in conjunction with the NIOSH 9002 method.
- FSDSs (stationary and personal air). Will LFO (Libby Field Office) personnel be reviewing the FSDSs? I think this is a good idea. And, the form as written seems to imply this. If this is not the case remove the references to LFO. Consider whether the Land Use selections cover the Flyway area or instead adding Flyway as a choice
- FSDS (soil). Will a BD number be applied? I assume not since that refers to a building. Remedium should be clear on this point. Again, this form implies a review by LFO personnel. Revise accordingly.

15. Appendix 3. The CSSCP SOP indicates that equipment blanks will be collected as part of this effort. This translates to another analysis media: water. Provisions for that analysis and data evaluation should be included in the SAP (QAPP). EPA has all the supporting analysis tables/Excel spreadsheets for this effort.

16. Appendix 7. This section states: "Photographic activities must be documented in a photographic logbook or in a section of the field logbook." I recommend that: 1) a choice not be given; 2) rather, require this information to be tracked in the field logbook; and 3) the photographs be tracked as they are taken. That is, the documentation information is provided within the logbook in the order it occurs. In addition and for ease of tracking, the team could prepare a table within the field logbook for each workday that tracks the consecutively assigned control numbers.

17. Appendix 8. Alconox and asbestos-free water must be used every time decontamination is performed on field sampling equipment.